Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

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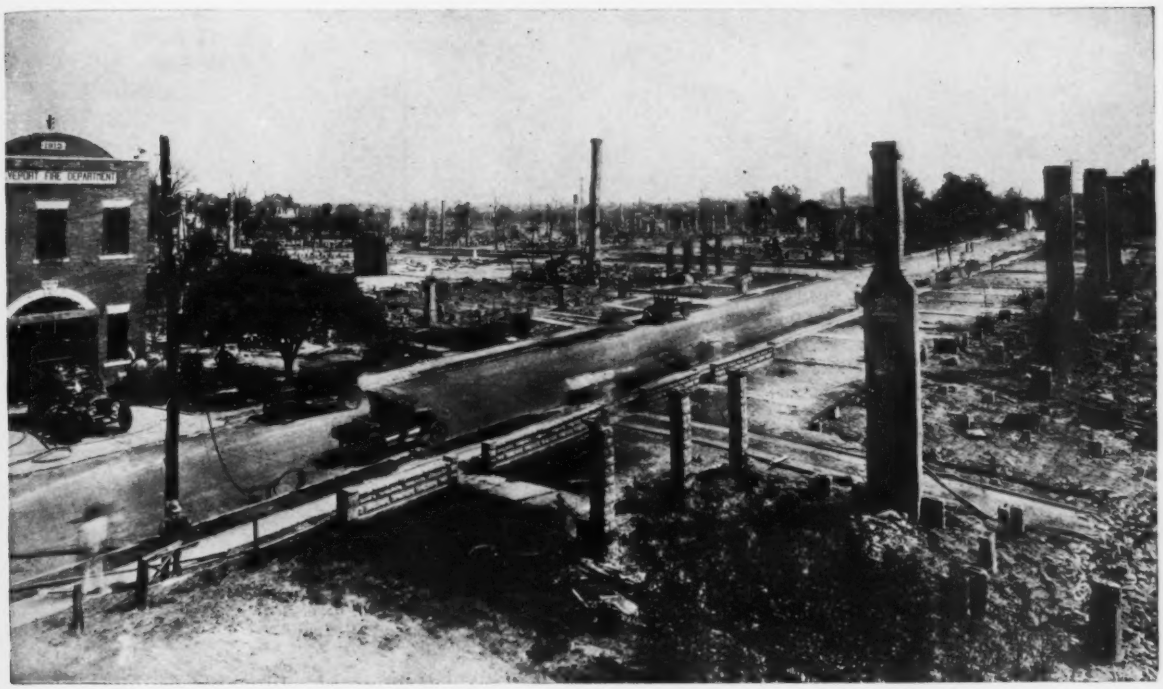


What was left of Shreveport, Louisiana, after it was swept by a conflagration spread by wooden shingle roofs.

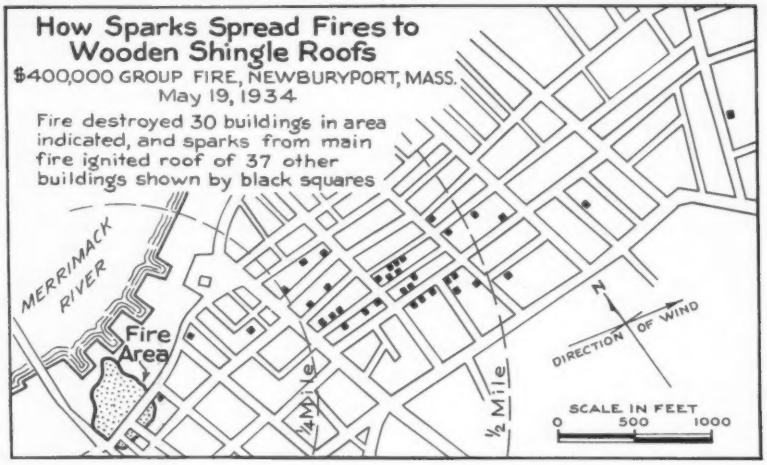
The Fire-Carrying Wooden Shingle

Conflagrations Sweep as Flying Brands Carry Destruction from Shingle Roof to Shingle Roof

WASHINGTON'S Birthday was a fine day in Elizabeth City, N. C. The sky was clear. The temperature was 70° and there was a brisk breeze blowing. At ten minutes of three in the afternoon a fire started in a small school building, igniting the wooden shingle roof. The wind caught up the burning shingles and within an hour 37 buildings all with shingle roofs and spreading over an area 1800 feet long were involved. Some of the dwelling houses involved were completely destroyed; others just had the roof burned off. After a hard fight the fire department got the fire under control.

This fire is by no means unusual. Similar fires have taken place time and time again. For instance, one nice bright day in the month of June with a good breeze blowing a fire started in a rubbish pile at Cle Elum, Washington. The volunteer fire department got on the job promptly and had some hose streams at work in a very few minutes, but the wind carried the burning shingles blocks at a time, starting fires at various points around the town. The wind, the weather and the shingle roofs were too much for the firemen and 17 blocks of the town were destroyed.

Again, one day in the month of March just about noon time, with a good brisk wind blowing, a fire


How Sparks Spread Fires to Wooden Shingle Roofs
$400,000 GROUP FIRE, NEWBURYPORT, MASS.
May 19, 1934
Fire destroyed 30 buildings in area indicated, and sparks from main fire ignited roof of 37 other buildings shown by black squares
MERRIMACK RIVER
Fire Area
¼ Mile
½ Mile
N
DIRECTION OF WIND
SCALE IN FEET
0 500 1000

started in a two-story frame shingle roof dwelling house in Grandview, Texas. Shingles and sparks from the blazing roof were carried a mile and a half northward by the wind to a shingle roof barn. Other dwellings in the path of the sparks ignited. The fire department watched the blazing shingles blowing over their heads. One hundred and thirty-six buildings were destroyed.

We have the same conditions one day at Canaan, New Hampshire. About noon time with a strong wind blowing, children were playing with matches and the hay in a barn ignited. The burning shingles were soon blown to other shingle roofs. The fire department promptly got on the job, but the task was too much for them, and 47 buildings were destroyed and two people fatally burned. The final paragraph of the report on this fire reads as follows: "The most striking lesson of the Canaan Conflagration is the well known lesson of the wooden shingle. If this village had not been cursed with the wooden shingle roof menace it would probably have been safe."

Once more we duplicate the conditions, last July in the town of Dorris, California. Fire starting in a box factory during the day time with a good stiff breeze blowing carried live embers all over the town, igniting the shingle roofs of various buildings. Within a short time 60 buildings were destroyed. Again the fire department did not have a chance.

Adopt Ordinance Requiring Fire Retardant Roofings

Hundreds of communities have adopted ordinances requiring that roof coverings be of a fire retardant type which will not be readily ignited from sparks, and which will not give off dangerous flying brands. If your community does not now have such a requirement write to the N.F.P.A. Executive Office, 60 Batterymarch St., Boston, Mass., for a suggested form of ordinance which you can submit for adoption in your community.

The stories of the majority of the big conflagrations that have occurred in the United States and Canada show that the primary reason for the conflagration can be contributed to the unholy trinity of dry weather, brisk winds and the wooden shingle roof. Famous conflagrations involving these factors were the Salem, Mass., Conflagration of June 1914, destroying 1600 buildings; the Paris, Texas, Conflagration of March 1916 destroying 1440 buildings; the Atlanta, Georgia, Conflagration of May 1917 destroying 1938 buildings; the Berkeley, Calif., Conflagration of September 1923 destroying 584 buildings; the Nashua, N.H., Conflagration of May 1930 destroying 240 buildings; and the Conflagrations at Auburn and Ellsworth, Maine, in May 1933, typical wooden shingle roof conflagrations which were reported in the October, 1933, issue of VOLUNTEER FIREMEN.

Aside from the conflagration aspect the wooden shingle roof is a very serious offender as the cause of innumerable individual dwelling house fires. A study made of the fires in Alabama over a five-year period shows that sparks on roofs were the greatest single cause of fires in the state, being accountable for 46 percent of all of the fires over the five years. The annual report of the State Fire Marshal of Iowa for the year 1934 just ended gives a list of the

You can see the flying brands leaving this wooden shing'e roof. The house is obviously doomed.

causes of 5,932 fires in the state during the year. Of these fires 1,942 were attributed to sparks from chimneys. No other cause of fire remotely approached this one in numbers. The next most important known cause was defective chimneys and flues which caused 347 fires. The report of the State Fire Marshal of Illinois for the fiscal year shows that out of 18,537 fires reported 4,207 were due to sparks on roofs, the next cause in importance being responsible for less than half that number of fires. Similar examples of the seriousness of the shingle roof hazard could be provided at great length.

There is no longer any reason why we should tolerate this sort of situation. We cannot control the weather or the wind, but we can control the sort of covering that we put on our roofs. There are today ample kinds, sizes and styles of fire-resistive and fire retardant roof covering readily available at a price that is within the reach of the home owner and builder.

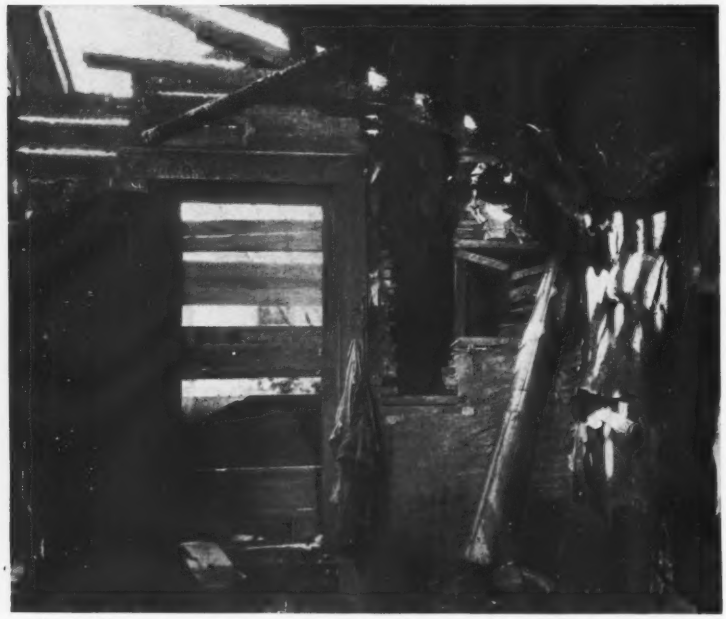
When a wooden shingle roof catches fire from a spark from a chimney or from a small brand, burning brands will be created and will float through the air lighting on other roofs or other combustible material. It is this property of ready ignition from small sparks and the production of burning brands that is responsible for the terrific fire and conflagration record of the wooden shingle. No other form of roof covering, even of the cheapest types of tar paper rolled roofing, possesses this quality of producing flying brands. The cheapest type of fire retardant roofing will ignite and will burn, but will not give off brands which fly through the air. This was amply demonstrated in a series of elaborate tests conducted by a committee of scientists under the auspices of the Dominion Fire Prevention Association at McGill University in Montreal, Canada, some years ago. Roofings were classified into six groups; Group 1 which would provide protection against severe fire exposure to Group 6 which would not give protection against small burning brands or direct flame and would produce dangerous burning brands. All of the wooden shingles tested, including the best grade of wooden shingle, fell into Group 6. No other type of roof covering was placed in this group, although every kind of roofing used in Canada was tested. There are no records of any conflagrations that have occurred due to the spread of fire from fire retardant roofing.

International

Shingle roof conflagration at Auburn, Maine. Sparks carried the fire to wooden shingle roofs even on the far side of the river shown.

Producers of wooden shingles quite generally admit the hazard of the old common variety of wooden shingle, but are claiming that the heavier vertical grain red cedar shingle now produced in the northwestern part of the United States and Canada is different and should be permitted. In this respect the following letter from Fire Chief Ryan of Dubuque, Iowa, will be of interest. Chief Ryan says: "In reply to your letter relative to the 5/2 vertical grain red cedar shingle required by ordinance in Dubuque, wish to say that this ordinance was passed largely through the political influence of local lumber interests. This shingle, like any other wood while new, has more or less resistive qualities against sparks and does not ignite easily from sparks from an ordinary chimney fire; but when aged is just another wood shingle and in my opinion no better than the wood shingle that has been in use for years. The cheapest grade of composition roofing is superior in my opinion to the best grade of wood shingle from a fire-resistive standpoint."

The elimination of the hazard of the wooden shingle roof can be accomplished in any community without financial loss by the adoption of a simple ordinance requiring that all new roofs be of fire retardant materials and that existing roofs when they are replaced or repaired be covered with fire retardant roofing. Hundreds of cities have such ordinances now on their books.



Three children lost their lives in this dwelling fire in Piqua, Ohio. The fire was caused by a defective and unlined chimney.

How to Tell When Chimney Is Safe

Answers to Topics Suggested for Discussion At Company Meetings During the Past Month

THESE topic questions suggested each month appear to be very popular with active and progressive fire companies which are using them regularly as a basis for discussions.

11

Q. How would you determine whether or not chimneys are safe?

A. Simple tests for temperature and cracks. If the exposed outside surface of a chimney is at any time too hot to rest the hand against without discomfort, it is an indication that any woodwork in contact with it is in an unsafe condition.

A smoke test is a simple method of detecting the presence of cracks or other openings in flues. The method is to build a smudge fire in the furnace or boiler connected to the bottom of the flue, and when the smoke is flowing freely, close it tightly at the top. Escape of smoke through the chimney walls or into other flues indicates defects that should be corrected.

To find out if old chimneys need rebuilding, climb to the top and look down inside. If the mortar has fallen from between the bricks on the inside, it will soon do so all the way through the wall. Take a sharp instrument such as an ice pick and try to push it through the mortar; if you can do so, the chimney should be rebuilt at once.

12

Q. What may be done to take the strain off a vertical hose line?

A. Secure the hose to the ladder, fire escape, or building, with a rope or hose straps. A charged vertical hose line is very heavy and places a severe strain on the couplings unless it is supported at the top and midway in the line. Better still, the supports should be placed just below each coupling to remove the unnecessary strain and insure the couplings against being pulled off. A 50-foot length of 2½-in. hose filled with water weighs about 185 pounds.

Short pieces of rope may be used in place of hose straps, chains, or ropes made for this purpose. When using ropes, however, it is important that the proper knot be used.

Problem Questions

FOR MAY

Suggested for discussion at company and department meetings this month

13

Are volunteer fire department stations and equipment ever completely destroyed in fires before it is possible to remove the apparatus with which to fight them?

14

How should salvage covers be cared for after being used?

Watch for the answers in the next issue of VOLUNTEER FIREMEN

Fire Tools

Jimmy

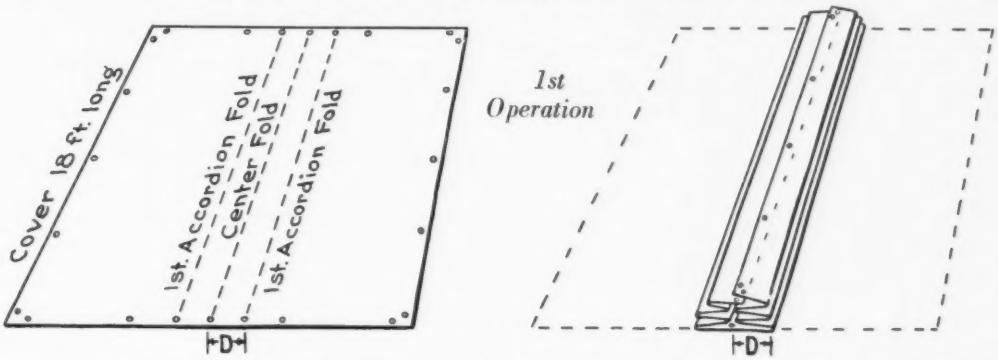
This simple tool is widely used and quite popular. It is commonly made in two sizes, 18-in. and 24-in. It is used for opening doors and windows, and to pry off baseboards, sheathing, and paneling.

To force a locked door which opens *inward* the curved pointed end is inserted between the door and the jamb. The other end is pushed inward against the door, springing the door from the lock and forcing it inward.

To force a locked door which opens *outward*, the curved pointed end is similarly inserted between the door and the jamb, but in this case the other end is pushed inward against the jamb, springing the door from the lock and forcing it outward.

Salvage Cover Fold for One-Man Use

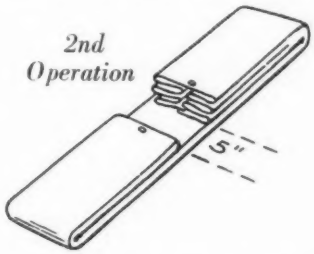
Where companies are working at fires shorthanded, it is desirable to have salvage covers so folded that, if necessary, they may be handled by one man. The fold described below is one developed by the Fire Department Instructor's Conference sponsored by the Fire Prevention Department of the Western Actuarial Bureau. The sketches follow a set prepared by Chief J. W. Just, Fire Department Instructor.



1st Operation

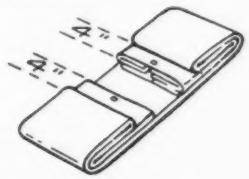
The fold is started in the usual manner with the cover flat. The first operation is to bring the two halves to the center in an accordion fold, the folds being parallel to the long way of the cover. Most covers are 18 ft. long and of widths from 12 ft. to 18 ft. The width of each side of the accordion is the dimension "D", and is 1/12 the width. There is usually a grommet hole where the center fold comes. As an aid in starting the accordion, the distance D may be marked off by means of an extra grommet hole or a painted mark.

On the final fold of the accordion, the two outside edges of the cover are carefully lapped, so that the corner grommets fall one on top of the other.



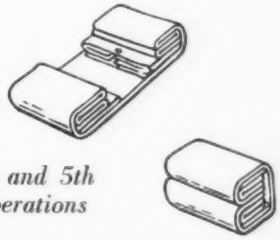
2nd Operation

The two folded ends are carried to the center, a space of about 5 in. being left between the ends.



3rd Operation

The folds are again carried to the center, leaving about 4 in. from the ends already folded over.



4th and 5th Operations

The cover is again folded toward the center and then folded entirely over in a "book" fold.

Using the Folded Cover

When used by one man, the cover is laid on top of the stock to be covered. The above fold enables it to be opened both ways and thus draped over the stock.

This fold is no less useful where there are two men to handle it. One man holds the cover across his arms and flops one fold over into the other man's arms. Both men then reach a hand into the center of the fold and find the two overlapping end grommets. The cover is then dropped from their arms and the men back apart, retaining their holds on the corners. This leaves each man with the two corner grommets on his end of the cover. The cover throw over the stock is then made in the usual way.

Roster of Fire Companies and Departments

THE Volunteer Firemen's Section of the National Fire Protection Association is now one and one-half years old. The total membership is 8,054 firemen from the 373 companies and departments listed below. This is sixty per cent more members than last May when a similar list was printed.

United States

Arizona

Flagstaff Fire Dept.
Safford Fire Dept.
Williams Fire Dept.
Yuma Fire Dept. No. 1.

Arkansas

Batesville Fire Dept.
Harrison Fire Dept.

California

Albany Vol. Fire Dept.
Barstow Fire District.
Ben Lomond Fire Dept.
Brawley Firemen's Assn.
Carmel Fire Department.
Coachella Vol. Fire Dept.
Concord Vol. Fire Dept.
Crescent City Fire Dept.
Dinuba Vol. Fire Dept.
Kingsburg Fire Dept.
Menlo Park Fire District.
Monterey Fire Dept.
Mountain View Fire Dept.
Ojai Valley Fire Dept.
Portola Fire Dept.
Red Bluff Fire Dept.
Redding Fire Dept.
Sanger Vol. Fire Dept.
Tustin Vol. Fire Dept.

Colorado

Florence Fire Dept. No. 1.
Fort Morgan Fire Dept.
Sterling Vol. Fire Dept.

Connecticut

Danbury, Citizens Hose Co. No. 6.
Danielson, Capt. Put Eng. Co.
Norfolk Vol. Fire Dept., Inc.
North Haven Vol. Fire Co. No. 1.
Trumbull Vol. Fire Co. No. 1, Inc.
Waterford, Oswegatchie Fire Co. No. 4, Inc.

Delaware

Clayton Fire Co.
Dover, Robbins Hose Co. No. 1.
Lewes Fire Dept., Inc.
Richardson Park, Five Points Fire Co.
Seaford Vol. Fire Dept.
Smyrna, Citizens' Hose Co. No. 1.

Florida

Stuart Fire Dept.

Idaho

Lewiston Fire Dept.
Moscow Vol. Fire Dept.
Preston Vol. Fire Dept.
Salmon Fire Dept.
Shelley Vol. Firemen.

Illinois

Barry Fire Dept., Inc.
Blue Island Fire Dept.
Brookfield Fire Dept.
Bunker Hill Vol. Fire Co. No. 1.
Columbia Vol. Fire Co.
Dolton Vol. Fire Dept.
Dundee Fire Dept.
Elmhurst Fire Dept.
Eureka Fire Co.
Franklin Park Fire Dept.
Gurnee Vol. Fire Dept.
Lockport Fire Dept.
Millstadt, Union Fire Co.
Morton Fire Dept.
Mt. Pulaski Fire Dept.
Niles Vol. Fire Dept.
O'Fallon Fire Dept. No. 1.
Park Ridge Fire Dept.
Riverside Fire Dept.
Roselle Vol. Fire Dept.
Steger Fire Dept. No. 1.
Stockton Fire Dept.
Sycamore Fire Dept.
Wauconda Fire Dept.
Western Springs Fire Dept.
Wood River Fire Dept.
Woodstock Fire Dept.

Iowa

Atlantic Fire Dept.
Clarion Vol. Fire Dept.
Grand Junction Vol. Fire Dept.
Grundy Center Vol. Fire Dept.
Manly Vol. Fire Dept.
Mediapolis Fire Co.
Odebolt Fire Dept.
Vinton Vol. Fire Dept.

Kansas

Ashland Fire Dept.
Burlington Fire Dept.
Marion Fire Dept.
Marysville Vol. Fire Dept.
Meade Firemen's Relief Assn.

Kentucky

London Fire Dept.

Louisiana

Haynesville Fire Dept.
Opelousas, Hope H. & L. Co. No. 1.
Thibodaux Fire Dept.
Welsh Vol. Fire Dept.

Maine

Corinna Fire Dept.
Freeport Fire Dept.
Presque Isle Fire Dept.
Springvale Fire Dept.

Maryland

Annapolis, Rescue Hose Co.
Frederick, United Steam Fire Eng. Co. No. 3.
Grantsville Vol. Fire Dept.
Howard County Vol. Firemen's Assn., Inc., Ellicott City
LaPlata Vol. Fire Dept.
Linthicum Hts., Community Fire Co., Inc.
Silver Spring Vol. Fire Dept.
Takoma Park Vol. Fire Dept. Inc.

Massachusetts

Ashburnham Fire Dept.
Belchertown Fire Dept.
Harwich Fire Dept.
Ocean Bluff, Marshfield Fire Dept. Co. No. 1.
Reading Fire Dept.
Sudbury Fire Dept.
Truro Fire Dept.
Ware Fire Dept.

Michigan

Birmingham Fire Dept.
Grandville Fire Dept.
Hart Fire Dept.
Lowell Fire Dept.
Milford Fire Dept.
Newaygo Vol. Fire Dept.
Richville Community Fire Assn.

Minnesota

Ada Fire Dept.
Cyrus Vol. Fire Dept.
Ellendale Fire Dept.
Fairmont Fire Dept.
Gibbon Fire Dept.
Grand Rapids Fire Dept.
Keewatin Fire Dept.
Lewiston Vol. Fire Dept.
Madelia Fire Dept.
Morgan Fire Co.
New Ulm Fire Dept., Eng. House No. 1.
Northfield Fire Dept.
Waterville Vol. Fire Co.
Wheaton Fire Dept.
White Bear Lake Fire Dept.
Windom Vol. Fire Dept.

Missouri

Fredericktown Fire Dept.

Montana

Dillon Vol. Fire Dept.
Whitefish Vol. Fire Dept.

Nebraska

Alliance Vol. Fire Dept.
Ansley Vol. Fire Dept.
Auburn, Hose Co. No. 1.
Blair Fire Dept.
Fairbury Fire Dept.
Franklin Vol. Fire Dept.
Friend Fire Dept.
Long Pine Vol. Fire Dept.
Nehawka Vol. Fire Dept.
Ralston Vol. Fire Dept.
Sargent Vol. Fire Dept.
Schuyler Fire Dept.
Scottsbluff Vol. Fire Dept.
Wisner Hose Co. No. 1.

Nevada

Sparks Fire Dept.

New Hampshire

Franklin Fire Dept.

New Jersey

Allendale Fire Dept.
Atco Vol. Fire Co. No. 1, Inc.
Atlantic County Firemen's Assn., Mays Landing
Basking Ridge Fire Co. No. 1.
Bogota Fire Dept.
Brookside Eng. Co. No. 1.
Closter, Knickerbocker H. & L. Co.
Dover Fire Dept.
Haledon Fire Co. No. 1.
Helmetta Fire Dept.
Lincoln Park Fire Dept.
Livingston Fire Dept.
Merchantville, Delaware Gardens Fire Co.
Metuchen, Eagle H. & L. Co.
Milltown Fire Dept.
Morristown, Morris Township Fire Dept.
Newark, Pittsburgh Plate Glass Co.
New Brunswick, North Brunswick Vol. Fire Dept.
Pine Brook Vol. Fire Co.
Port Reading Fire Co. No. 1.
Stanhope Hose Co. No. 1.
Stratford Fire Co. No. 1, Inc.
Verona, Engine Co. No. 1.
West Caldwell Vol. Fire Dept.

New Mexico

Clayton Fire Dept.
Santa Fe Vol. Fire Dept.

New York

Bolton Landing Fire Dept.
Canton Fire Dept., Eng. House 1.
Chateaugay, Protection Hose Co. No. 7.
Chazy Fire Dept.
Congers, Alert H. & L. & Eng. Co.
Depew Fire Dept.
East Rockaway Fire Dept.
Freeport Fire Dept., Hose Co. No. 3.

Members of the Volunteer Firemen's Section

Garden City Fire Dept.
Garrison Vol. Fire Co., Inc.
Great Neck, Vigilant Eng. H. & L. Co.
Hamburg Vol. Fire Dept.
Hempstead Fire Dept.
New York Mills Fire Dept.
Norwich, Maydole Hose Co. No. 2.
Pearl River, Excelsior Fire Eng. Co.
Pearl River H. & L. Co.
Pine Plains Hose Co. No. 1.
Point Pleasant Vol. Firemen's Assn.
Ravena Hose Co. No. 1.
Rochester, Greece Ridge Fire Dept., Inc.
Rockland County Vol. Firemen's Assn., Haverstraw.
Sayville Fire Dept.
Schenectady, Grand Blvd. Fire Dept. No. 1.
Sharon Springs Fire Dept.
Sidney Fire Dept.
Solvay Fire Dept.
Spring Valley, Hillcrest Fire Co. No. 1.
Stewart Manor Fire Dept.
Tappan Vol. Fire Assn.
Valley Stream, H. & L. Co. No. 1.
Wantagh Fire Dept.
Williamsville, Amherst Fire Council.
Worcester Hose Co.

North Carolina

Albermarle Fire Dept.
Lexington Fire Dept.

North Dakota

Beulah Vol. Fire Dept.
Carrington Fire Dept.
Jamestown Fire Dept.
Valley City Fire Dept.

Ohio

Adams Township Vol. Fire Dept., Toledo.
Addyston, Miami Township Fire Dept.
Amherst Fire Dept.
Belle Center Vol. Fire Dept.
Byesville Fire Dept.
Cheviot Fire Dept.
Granville Vol. Fire Dept.
LeRoy Vol. Fire Dept.
Madeira & Vicinity Fire Dept.
Mayfield Hts. Vol. Fire Dept.
North Canton Fire Dept.
North Lima, Beaver Township Vol. Fire Dept.
Smithville Community Fire Co.
Spencer Vol. Fire Dept.
Swanton Vol. Fire Dept.
Vermilion Vol. Fire Co.
Warrensville Hts. Fire Dept.

Oklahoma

Apache Vol. Fire Dept.
Cushing Vol. Fire Dept.
Lawton Fire Dept.

Oregon

Hillsboro Vol. Fire Dept.
The Dalles Fire Dept.

Pennsylvania

Bala-Cynwyd, Union Fire Assn.
Buck Hill Falls, Buck Hill Fire Co.
Cashtown Community Fire Co.
Delaware County Firemen's Assn., Lansdowne.
Edge Hill Fire Co. No. 1.
Emaus Fire Co. No. 1.
Finleyville Vol. Fire Dept. Inc.
Greensburg, Hose Co. No. 2.
Harrisburg, Royal Fire Co. No. 14.
Hershey Vol. Fire Co.
Lebanon County Firemen's Assn., Palmyra.
Lewistown, Fame Fire Co. No. 2.
Montgomery Vol. Fire Co.
No. Belle Vernon Vol. Fire Dept.
Philipsburg, Reliance Fire Co. No. 1.
Phoenixville, West End Fire Co. No. 3.
Pittston, Jenkins Township Vol. Hose Co. No. 1.
Pottstown, Empire H. & L. Co.
Prospect Park Fire Co. No. 1.
Quarryville Fire Co.
Reading, Goodwill Fire Co. No. 1. Hyde Park.
Ridley Park Fire Co. No. 1.
Sharon Hill Fire Co.
Stroudsburg, Phoenix Fire Co. No. 2.
Upper Darby Fire Co. No. 1.
Waynesburg Vol. Fire Co.
Windber Fire Co. No. 1.
York, Vigilant Fire Co. No. 1.

Rhode Island

Chepachet Fire Co.
Cranston, Pawtuxet Vol. Fire Co.
Greenwood Vol. Fire Co. No. 1.
Hope and Jackson Fire Co.
Wickford, North Kingstown Fire Dept.
Woonasquatucket Valley Firemen's League, Graniteville.

South Dakota

Highmore Vol. Fire Dept.
Philip Vol. Fire Dept.
Rapid City Fire Dept.
Redfield Fire Dept.
Tripp Fire Dept.
Wagner Vol. Fire Dept.
Wilmot Fire Dept.

Tennessee

Etowah Fire Dept.

Texas

Aransas Pass Fire Dept.
Bishop Vol. Fire Dept.
Carthage Fire Dept.
Center Vol. Fire Dept.
DeKalb Fire Dept.
Eagle Pass Vol. Fire Dept.
Jacksonville Vol. Fire Dept.
Luling Fire Dept.
McAllen Vol. Fire Dept.
Pecos Vol. Fire Dept.
Perryton Vol. Fire Dept.
Pilot Point Hose Co. No. 1.
Schulenburg Fire Dept.
Strawn Vol. Fire Dept.
Texas City Vol. Fire Dept.
Victoria Fire Dept., Victoria.
Weslaco Vol. Fire Dept.

Utah

Bingham Canyon, Bingham Vol. Fire Dept. No. 1.

Vermont

Enosburg Falls Fire Dept.
Windsor Fire Dept.

Virginia

Charlottesville Fire Dept.
Orange Vol. Fire Dept.
Warrenton Vol. Fire Dept.

Washington

Cashmere Fire Dept.
Cheney Fire Dept.
Cle Elum Fire Dept.
Kirkland Fire Dept.
Monroe Fire Dept.
Puyallup Fire Dept.
Wapato Fire Dept.

West Virginia

Salem Vol. Fire Dept.
Terra Alta Vol. Fire Co.

Wisconsin

Cedarburg Fire Dept.
Horicon Fire Dept.
Hurley Vol. Fire Dept.
Kimberly Fire Dept.
Lake Geneva Vol. Fire Dept.
Lake Mills Vol. Fire Dept.
Milton Junction Fire Dept.
Nekoosa Vol. Fire Dept.
Norwalk Vol. Fire Dept.
River Falls Vol. Fire Dept.
Seymour Fire Dept.
Van Dyne Vol. Fire Dept.
Viroqua, Fire Co. No. 1.
Waterloo Fire Dept.
West Bend Fire Dept.
Whitefish Bay Vol. Fire Dept.

Wyoming

Basin Vol. Fire Dept.
Worland Vol. Fire Dept.

Alaska

Anchorage Vol. Fire Dept.
Juneau Fire Dept.
Ketchikan Vol. Fire Dept.
Seward Vol. Fire Dept.

Canada

Alberta

Lethbridge Fire Dept.

British Columbia

Abbotsford Village Fire Dept.
Courtenay Vol. Fire Dept.
Cumberland Vol. Fire Dept.
Duncan Fire Dept.
Kamloops Vol. Fire Dept.
Kelowna Vol. Fire Brigade
Merritt Fire Dept.
Stewart Vol. Fire Dept.

New Brunswick

Dalhousie Fire Dept.
Marysville, Canadian Cottons, Ltd., Gibson Mill's.
St. George Vol. Fire Dept.
St. Stephen Fire Dept.

Nova Scotia

Kentville Vol. Fire Dept.

Ontario

Humber Bay Vol. Firemen.
Kenora Fire Dept.
Kirkland Lake Vol. Fire Brigade.
Lakefield Fire Dept.
Leaside Vol. Fire Brigade.
New Liskeard Fire Dept.
Oakville Vol. Fire Dept.
Port Colborne Fire Co.
Schumacher Fire Dept.
South Porcupine Fire Dept.
Swansea Fire Dept.
Toronto, Imperial Varnish & Color Co. Fire Brigade.
Wellesley Vol. Fire Dept.

Prince Edward Island

Charlottetown Fire Dept.

Quebec

Montreal, Atlantic Sugar Refineries.
Montreal, Canadian Industries, Ltd.
Noranda Fire Dept.
Noranda Mines Fire Dept.
Rouyn Fire Dept.

Saskatchewan

Rosetown Fire Brigade.
Wilkie Vol. Fire Brigade.

South America

Rep. de Colombia

Cali, Valle, Cuerpo de Bomberos Voluntarios.

Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

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Volume 2 **May, 1935** Number 5

The Annual Meeting The thirty-ninth annual meeting of the National Fire Protection Association will be held at Hotel Atlanta Biltmore, Atlanta, Georgia, from Monday, May 13, to Thursday, May 16.

Although no formal meeting of the Volunteer Firemen's Section is planned, volunteer firemen, especially the members of the section, are cordially invited to attend the sessions. Almost every item on the four-day program will be of interest to volunteers. Thousands of volunteer firemen in such states as Georgia, Alabama, Tennessee, North Carolina, and South Carolina are within easy reach of Atlanta.

Complete information on the meeting can be had for the asking. Reduced railroad fares are available. Fire companies, members of the section have already been mailed a copy of the program, and a postcard upon which to check the copies of advance reports wanted.

The Fire Waste Contest Each year the National Fire Waste Council which is affiliated with the United States Chamber of Commerce holds a contest among cities of all classes for effective fire prevention activity. By far the largest class of cities in the contest are cities under 20,000 population. The winner of the first award in this class of cities for 1934 was Geneva, New York. Honor cities in this class were: Palo Alto, California; Albany, Georgia; Valley City, North Dakota; Stillwater, Oklahoma; Pottstown, Pennsylvania; Lafayette, Louisiana; Ridgewood, New Jersey; Colfax, Washington; Hollister, California; Coatesville, Pennsylvania. These cities are entitled to our congratulations for excellence in their fire prevention program. In a number of them the fire department is a member of our Volunteer Firemen's Section and we hope that this membership proved helpful in suggesting ideas for fire prevention work.

N.J. Department Has Good Neighbors When the thirty-five members of the Park Ridge, N. J., Volunteer Fire Department were invited to attend the weekly broadcast of Ed Wynn, the "Texaco Fire Chief" at Radio City, there arose the question of how to protect the town in the absence of its fire fighters. The volunteer departments of Woodcliff Lake and Montvale readily agreed to assume the responsibility of answering all the Park Ridge alarms while its fire department was the guest of the comedian.

Fire Drills in the Home "Loss of life is technically due to confusion in the household which necessarily comes from the first indication that there is a fire. This could be avoided if we would hold regular fire drills in our home and have definite plans formulated so that each individual would have a definite duty to perform.

"1. The father should determine exactly in which end of the house the fire is most severe, and if possible, shut the doors leading to the bedrooms, preventing accumulation of smoke in that end of the house.

"2. Then he should immediately notify the fire department.

"3. His next step is to assume full responsibility for the safety of the children. If there are aged people, or persons incapacitated, it is of vital importance that some definite arrangement be made to secure absolute safety for them in the event of fire.

"4. Meanwhile, the mother should see to it that the older children are placed in some advantageous position so that the fire department would be able to rescue them, if exit to the street is cut off. There should be some particular person in the house who should be responsible to see that this plan is carried out. If an arrangement of this kind can be made, it is very likely that the loss of human life will be negligible. We therefore urge every family to hold a fire drill once every two or three months and we can assure you that the results in the case of an emergency will be well worth the time and effort."

The above is quoted from a bulletin issued by the Fire Prevention Committee of the Lakewood, Ohio, Chamber of Commerce. Lakewood has had a remarkably fine fire loss record and is nationally recognized for the effective fire prevention campaigns which it has carried out in the last few years. Lakewood reports that home fire drills are being conducted in the city and feels that this procedure is an effective method of creating fire consciousness among adults. Other cities and towns would do well to follow Lakewood's example and call attention to this vital responsibility.

Hydrant Threads Battered A borough in Pennsylvania of nearly 2,000 residents fell over a year behind in its payments to the water company for fire protection service. Thereupon the water company battered the threads of the eleven hydrants in the district with sledges and removed their operating nuts. Although tax collections in the town were running far short of the requirements and about 90 per cent of the population were on relief, the water company obviously used bad strategy in this drastic procedure and threat to public safety.

Membership Plan

Volunteer Firemen's Section
National Fire Protection Association

WHERE twenty or more firemen in a volunteer company or department affiliate with the Volunteer Firemen's Section the cost is 50 cents a year *per man.* Each fireman will receive one copy of VOLUNTEER FIREMEN, the monthly journal of the Volunteer Firemen's Section, mailed regularly to his home address. The company or department automatically becomes a member of the National Fire Protection Association and is entitled to full privileges of membership. All the literature regularly issued to N.F.P.A. members is mailed to headquarters of the company or department.

Membership may be applied for by one member of the company or department collecting 50 cents for each of the 20 or more members and making a single remittance for the group, or the company or department may take a membership for its men and make a single remittance from company or department treasury.

Companies With Less Than Twenty Members

Because of the large amount of material mailed to members, not less than $10.00 can be accepted from any company or department for membership dues. In the case of companies or departments with less than twenty men this means that the cost divided among them will be slightly higher per man. Of course, some such companies or departments may prefer to make a single remittance of $10.00 from the company or department treasury. In other cases a few interested citizens, not members of the company or department, may be glad to contribute 50 cents apiece to make up the required minimum of twenty, so that the members may secure the rate of 50 cents per man.

These companies or departments have full privileges of N.F.P.A. membership as above, and each member receives the monthly magazine, VOLUNTEER FIREMEN, at his home.

Have you ordered your copy of . . .

The Volunteer Fire Company

By William Draper Brinckloe

This book is an attractive volume of 168 pages and 24 illustrations of volunteer fire department apparatus, equipment and fire fighting methods.

It was written by a volunteer fireman. It contains 14 chapters of as interesting reading as a good novel.

Send $1 for your copy today.

National Fire Protection Association
60 Batterymarch Street, Boston Mass.

A Barton's Value
"Thoroughly Demonstrated"

Says Feb. 7th issue of Bangor Advance

Chief Bosier Now Has two Barton Pumps

Bangor, Michigan, purchased its first Barton in 1931. Last fall a second Barton was added. One Barton equipped fire truck is now used for town protection, the other for rural runs throughout the township.

TWO FARM FIRES IN THE SAME LOCALITY KEPT FIREMEN BUSY MANY HOURS

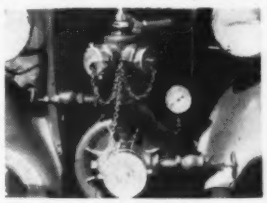
The Bangor firemen spent the greater part of Thursday night on duty with the rural truck, fighting fires at the farms of George Carpenter and Mrs. Marie Welch.

The Carpenter fire was reported first, shortly after nine o'clock, when backfire from a truck is thought to have started a blaze in the shed The firemen were of great service in preventing the spread of the flames to other buildings, but were unable to stop the fire in the shed as it was out of control when they arrived.

As the firemen were preparing to leave the Carpenter farm, word of the second fire at the Welch farm was brought by Ray Haney, who discovered it as he was returning home from the Carpenter fire. Here, the roof of the upright portion of the house was afire, the flames having gained considerable headway.

They Chopped their Way To Water and Quickly Quenched the Flames

At this fire the value of the new pump as a rural fire-fighting machine was most thoroughly demonstrated. A line of 350 feet of house was run across the road from the burning dwelling to a small pond, the suction hose placed through a hole chopped in the ice and two streams of water under high pressure were available which quickly quenched the flames holding the damage to the roof and a few furnishings, the total value being estimated at $500, covered by insurance.



The Barton Centrifugal Fire Pump is mounted on front as shown above. You can use practically any make of new or old chassis. Pump can be installed in few hours by garage mechanic.

Here's REAL PROTECTION, Mr. Fire Chief! You'll get a big thrill fighting fires with this wonderful Barton Pump. At your command will be two smashing streams at pressures up to 250 pounds. You can blast your way through—break windows five stories up! Here's a pump with geared drive that cuts motor speeds in half——with ball-bearing, water-cooled transmission case—with automatic primer that never fails! Never before such a value!

Best of all A SMALL INVESTMENT COVERS EVERYTHING. The Barton is not high priced, yet it is the ONLY front mounted fire pump that meets Underwriters' Tests. Write us for FREE Bulletin No. 75.

AMERICAN STEAM PUMP COMPANY
BATTLE CREEK, MICHIGAN

COMBINATION BRASS NOZZLE FOR 50-FOOT STREAM OR A LONG COARSE SPRAY. NOZZLES CHAINED TO PUMP AND CANNOT BECOME LOST
HEAVY BRASS QUICK OPENING WATER TIGHT FILLER CAP WITH REMOVABLE BRASS STRAINER CAP HAS INSIDE CHAIN TO PREVENT LOSING.
COMBINATION BRASS HANDLE FOR CARRYING TANK AND FOR HOLDING PUMP
EXTRA HEAVY TANK HAS SOLID BRASS BOTTOM. ALL JOINTS LOCKED AND SOLDERED. RUST PROOF.
Patented
FORM-FITTING VENTILATED TANK GIVES A CONSTANT CIRCULATION OF AIR BETWEEN TANK AND CARRIER'S BACK. IT PROTECTS THE BACK FROM THE COLD WATER AND MOISTURE IN THE TANK AND KEEPS THE BACK WARM AND DRY. THE FORM-FITTING SHAPE OF THIS TANK FITS THE BACK PERFECTLY SNUG AND FIRM AND FEELS GOOD.

INDIAN

FIRE PUMP

Sturdy 5 gal. tank curved in shape. Will not slide around on back. Heavy brass pump throws strong stream of clear water 30 to 50 ft. Standard equipment with many departments. Puts out grass, rubbish or brush fires instantly—inexpensive. Write for details.

D. B. SMITH & CO., 414 Main St., Utica, N.Y.

Pyrene Prize Letter Contest

This Month's Awards for Best Letters on Fires Put Out with Fire Extinguishers

FIRST PRIZE — $10.00

ED. J. GLOVER, *Chief*,
Fire Department, Lumberton, N. C.

Extinguishes Asphalt Vat Fire

"Receiving an alarm from a garage on the state highway, we responded with our triple combination truck. We found a 50-gallon asphalt vat burning and boiling over, causing a stream of burning asphalt to run towards the wooden garage buildings housing thousands of dollars' worth of trucks and supplies.

"With the aid of a wooden door for a shield from the intense heat we managed to get within about six feet of the vat, and by using the 1-gallon carbon tetrachloride extinguisher we carry on our truck we were able to extinguish the entire blaze in less than one minute and saved thousands of dollars of damage to the buildings and contents."

SECOND PRIZE — $3.00

PAUL RINGLE, *Sec.-Treas.*,
Volunteer Fire Dept., Hillsboro, Ore.

Takes Place of Ladder and Water

"While working in a rural district my partner and I noticed the roof of a large two-story house on fire. Our rural truck had met with a traffic accident and was unable to make the run. We took a garden hose to the porch roof, since the only ladder available was not long enough to reach the roof of the house, but the pressure was not sufficient to force water out of the hose.

"Making my way to the attic with two one-quart carbon tetrachloride extinguishers, I found the fire had burned through the shingles and sheeting and was dropping through the attic. I put the fire out with a loss of about $15."

THIRD PRIZE — $2.00

RUSSELL W. HILD, *Chief*,
Fire Department, Newberry, Mich.

Extinguisher Saves Two Lives

"I was driving along on State Road with heavy timber on both sides during a strong northwest wind. Trees were falling in the road. I came upon a car with a man and woman in it, upon which a tree had fallen. The car had started to burn with the two people trapped in it. As I am never without a carbon tetrachloride extinguisher in my personal car, I was able to use it and save two lives as well as the car."

HONORABLE MENTION

W. T. BENNETT,
Fire Department, Laurel, Del.

JOHN A. RAAB, *Chief*,
Fire Department, Dallas City, Ill.

C. P. TOWNSEND, *Chief*,
Fire Department, Abbeville, S. C.

IF YOU are a member of your local fire department you are missing a real opportunity to receive a cash award if you haven't set down on paper the story of one of the numerous fires at which you have been present where approved fire extinguishers were successfully used. Every month cash prizes are paid to those whose letters contain the best stories.

It's the story we want and no one need be bashful because he may doubt his ability to write the story effectively. We will attend to any rewriting that may be necessary to get the story into the space available in these columns, and will provide a suitable heading.

This contest is sponsored co-operatively by the Pyrene Manufacturing Company of Newark, N.J., and VOLUNTEER FIREMEN to bring the lessons which may be learned, from actual fires, of the value of fire extinguishers as a means of saving life and property. Your story can help in this important service.

The stories this month for which prizes have been awarded are thrilling accounts embracing the elements of great danger, quick thinking and courageous action.

Each month the following cash prizes are awarded: First Prize, $10.00; Second Prize, $3.00; Third Prize, $2.00. The contest is judged each month by the engineering staff of the National Fire Protection Association and the editors of VOLUNTEER FIREMEN.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where any approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experiences.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 15th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letter to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

Outstanding in Performance and Endurance!

Passed the 12-Hour Test conducted by the Engineers of the National Board of Fire Underwriters

$1627

☞ Price All Complete
Includes the
V-8 Chassis

Delivering as follows:

☞ **405 G.P.M. at 125 lbs. Net Pump Pressure Engine R.P.M. 2553**

☞ **203 G.P.M. at 202 lbs. Net Pump Pressure Engine R.P.M. 3002**

ACTUAL CAPACITY
500 G.P.M. from Suction
650 G.P.M. from Hydrants
at 120 lb. Pressure

SPECIFICATIONS:

Champion Pump—Type F4. Complete with Shut-off Valve and Wheel, 2½" outlet with brass cap and chain and 3½" inlet with brass cap and chain. Also equipped with 1½" valve on Booster Outlet and 1½" valve on Booster Inlet. Includes also 300 lb. Pressure Gauge, Automatic Primer, Friction Disc Clutch, Splined Drive Shaft of Chrome Nickel Steel, Drain Cock, Auxiliary Cooling for motor.

Chassis. 1935 Ford V-8. Wheelbase, 157". 82 Horse Power.

Body. All steel construction, with straight sides without fender wells or obstructions of any kind in hose bed. Electrically hand welded into one unit for extra strength and durability. Capacity 1500 feet 2½" hose. Double flooring with special slatted oak top flooring for ventilation.

Booster Tank. Rustless steel, electrically hand welded with recessed filling trough on top for filling with buckets or by hose line from any water supply. Tank, 200 gallon capacity, with surge plates to prevent sloshing.

Booster Tank Connections. Permanent connections from tank to pump booster inlet and from pump booster outlet to swivel joint on reel.

Special Seat. Custom built. Upholstered in good grade waterproofed material.

Suction Hose Channel. Steel, welded integral with body. Carries two or three lengths large suction hose.

Railings. Side, Cross Bar and Step. Solid polished brass with malleable flanges and fittings for extra strength.

Dash Rail. Polished brass and curved gracefully to conform to cowl curve.

Reel. Mounted over tank. Holds 200 feet booster hose.

Ladder Brackets and Locks. Both sides for Extension Ladder and Roof Ladder. Built as shown with 45° flared ladder channels and spring holders or with straight side body with double U shaped ladder brackets.

Floodlights. Two Fire Department Floodlights on rear crossbar. Chrome plated. Universal swivel brackets.

Red Fresnel Lights. Special Fire Dept. flashing type for right of way. Polished chrome finish.

Searchlight. Powerful Fire Apparatus Type. Polished chrome finish. Universal swivel bracket.

Tool Box. Steel. Carried on running board.

Bell. Special Fire Engine type. Polished Brass.

Siren. Super Champion High Speed, 6 Volt.

Painting. Gold Striping and Lettering. Handsome finish in Fire Dept. red enamel by master craftsmen. Artistic gold striping for contrasted beauty. "F. D." and your town name in genuine gold leaf letters on each side of hood. Hose equipment not included with the above.

IF YOU WANT to see some real enthusiasm, talk to the Fire Chiefs about Champion Fire Apparatus
From Albion, Pa., Chief Cherry writes to say:

W. S. DARLEY & CO.
Chicago, Ill.

APRIL 8, 1935.

Dear Sirs:—

We are amazed at the way the new truck takes the curves at high speed. Your engineers certainly balanced the load in a scientific way. With a gross load of 13,300 lbs., including nine men, at 55 miles per hour she rides and handles like a pleasure car. Water and live stock are two of the hardest loads to handle, but our load rides and handles like a load of castings, no sway. Some day we are going to send in some pictures and a nice letter giving the strong points of our Champion.

Very respectfully yours,
C. G. CHERRY, *Chief.*

YOU CAN HAVE WHAT YOU WANT

Select your chassis, any make, and write us to give you the EXACT PRICE of what you want in the way of Pump, Body, Booster Tank, Basket or Reel, Lights, Ladders, Siren, Suction Hose, Fire Hose, etc. We will send you complete specifications and the exact cost. ☞ Often this is less than prices given, sometimes slightly more, depending on your selection.

NOTICE! HOW TO BUY. Order the chassis of your choice from your local dealer. Pay him for it. He has the factory deliver it direct to us. We do all the rest and you come and drive it away from Chicago or have it delivered.

Champion equipment is adaptable to any chassis such as Ford V-8, Chevrolet, Dodge, Reo, Diamond T, G.M.C., International, Federal, etc. Price complete $1627.00, may be less or slightly more according to chassis you select.

☞ **We invite you to send for our Buyers' Guide. No charge. It shows the best in Fire Department Equipment of all kinds, and lowest net prices, all in plain figures.**

☞ ***A Friendly Firm***
In Business Since 1908

W. S. DARLEY & CO.

2810 Washington Chicago

In the Current N.F.P.A. Publications

Volunteer companies or departments, members of the Volunteer Firemen's Section, receive these publications and many others at company headquarters in addition to VOLUNTEER FIREMEN *which each member receives at his home address by reason of membership in the section.*

Advance Reports of the N.F.P.A. Technical Committees

With the April NEWS LETTER, volunteer fire companies or departments. members N.F.P.A., were sent a list of printed Technical Committee Reports which will be presented at the annual meeting and are now available upon request. These reports cover nineteen subjects, such as flammable liquids, safety to life, marking of fire hydrants, and spontaneous ignition. A complete list will be sent to any reader on request.

A pamphlet listing publications on fire prevention and fire protection available from the National Fire Protection Association can be obtained on request.

In the April QUARTERLY

Annual Sprinkler Tables

A summary of the actual fire experience with automatic sprinkler equipments in 68,600 fires. The tables show the performance and efficiency of sprinklers in 220 different occupancy classifications, and indicate the value of this form of protection for varying degrees of fire hazard. They also explain the small percentage of cases where spinklers were not successful in controlling fires.

Importance of the Volunteer

Studies indicate that there is almost four times as much fire apparatus manned and operated by volunteer fire departments as by full paid departments of the large cities. Volunteer firemen are a cross-section of the business life of the community they serve.

Fire Record of Oil Tank Ships

An interesting presentation of 78 explosions and fires on ships transporting gasoline, crude oil, and fuel oil. The stories and illustrations of many of these fires should appeal to any fireman whether he is ever called upon to fight such fires or not.

Whiskey Warehouse Fire Tests

Repeal of the prohibition amendment has revived an old fire hazard. An interesting account in this issue of tests made by actually setting fire to whiskey warehouses in Youngstown, Ohio, show how such fires burn and how they may be controlled.

Reports on Four Major Fires

A high school fire in Michigan in which several fires broke out at the same time at scattered points, causing a loss of over one-half million dollars.

A hotel fire in Wisconsin in which two persons lost their lives by suffocation from smoke and gases.

A waterfront warehouse fire in Savannah, Georgia, with a loss of approximately $500,000. The shed contained 7,700 tons of nitrate of soda. The fire was fought by the public fire department and a private fire brigade.

Collapse of a six-story grocery warehouse in Tacoma, Washington, and story of the fire that followed.

Also . . . . .

Tables showing causes of 366 lives lost in 229 fires in the past three months.
Political turnover in the office of State Fire Marshal.
Demands for economies and reductions in fire department expenditures.

EXECUTIVE OFFICE

NATIONAL FIRE PROTECTION ASSOCIATION

60 Batterymarch Street, Boston, Massachusetts

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